IN THE CLAIMS:

Please amend the claims as follows:

1. (Original) An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

data selection means for selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

class detection means for detecting a class to which informational data of the target position belongs, based on the multiple items of first informational data selected by the data selection means;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to the class detected by the class detection means; and

correction means for performing correction processing by use of the correction data generated by the correction data generation means on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational signal, to obtain informational data of the target position in the second informational signal.

2. (Original) The apparatus for processing informational signal according to Claim 1, wherein the correction data generation means includes:

storage means for storing the correction data for each class; and

data-reading means for reading the correction data out of the storage means, said correction data corresponding to the class detected by the class detection means.

3. (Original) The apparatus for processing informational signal according to Claim 2, wherein the correction data stored in the storage means is generated beforehand by using a student signal corresponding to the first informational signal and a teacher signal corresponding to the second informational signal.

4. (Original) The apparatus for processing informational signal according to Claim 3, wherein the student signal is obtained by decoding informational digital signal obtained by encoding the teacher signal.

5. (Original) The apparatus for processing informational signal according to Claim 1, wherein the number of items of the informational data of the target position in the second informational signal is N times (N is an integer of at least 2) the number of item of the second informational data corresponding to the target position.

6. (Original) The apparatus for processing informational signal according to Claim 5, wherein the correction data includes difference data of the number corresponding to the number of item of the informational data of the target position in the second informational signal; and

wherein the correction means adds the corresponding second informational data to each of the multiple items of correction data contained in each divided region obtained by dividing the correction data by N to obtain output informational data.

7. (Canceled)

8. (Canceled)

9. (Original) A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a second step of detecting a class to which informational data of the target position belongs, based on the multiple items of first informational data selected by the first step;

a third step of generating correction data for correcting an encoding noise, said correction data corresponding to the class detected by the second step; and

a fourth step of performing correction processing by use of the correction data generated by the third step on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational signal, to obtain informational data of the target position in the second informational signal.

10. (Original) A computer-readable medium for recording a program that allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a second step of detecting a class to which informational data of the target position belongs, based on the multiple items of first informational data selected by the first step;

a third step of generating correction data for correcting an encoding noise, said correction data corresponding to the class detected by the second step; and

a fourth step of performing correction processing by use of the correction data generated by the third step on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational signal, to obtain informational data of the target position in the second informational signal.

11. (Original) A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a second step of detecting a class to which informational data of the target position belongs, based on the multiple items of first informational data selected by the first step;

a third step of generating correction data for correcting an encoding noise, said correction data corresponding to the class detected by the second step; and

a fourth step of performing correction processing by use of the correction data generated by the third step on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational signal, to obtain informational data of the target position in the second informational signal.

12-23. (Canceled)

24. (Original) A unit for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

class detection means for detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal output from the decoding means;

subtraction means for performing subtraction processing by use of informational data among the multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, on the informational data of the target position in the teacher signal; and

operation means for averaging, for each class, output data of the subtraction means based on the class detected by the class detection means, to obtain correction data for each class.

25. (Original) The unit for generating correction data according to Claim 24, wherein the class detection means selects multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal output from the decoding means, to detect a class to which informational data of the target position in the teacher signal belongs, based on the selected multiple items of informational data.

26. (Original) A method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing subtraction processing by use of informational data among the multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, on the informational data of the target position in the teacher signal; and

a fourth step of averaging, for each class, data obtained at the third step based on the class detected at the second step, to obtain correction data for each class.

27. (Original) A computer-readable medium for recording a program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing subtraction processing by use of such informational data among the multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, on the informational data of the target position in the teacher signal; and

a fourth step of averaging, for each class, data obtained at the third step based on the class detected at the second step, to obtain correction data for each class.

28. (Original) A program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing subtraction processing by use of such informational data among the multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, on the informational data of the target position in the teacher signal; and

a fourth step of averaging, for each class, data obtained at the third step based on the class detected at the second step, to obtain correction data for each class.

29-33. (Canceled)

34. (Original) A unit for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

class detection means for detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal output from the decoding means; and

operation means for averaging, for each class, informational data of the target position in the teacher signal based on the class detected by the class detection means, to obtain correction data for each class.

35. (Original) The unit for generating correction data according to Claim 34, wherein the class detection means selects multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal output from the decoding means, to detect a class to which informational data of the target position in the teacher signal belongs, based on the selected multiple items of informational data.

36. (Original) A method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step; and

a third step of averaging, for each class, informational data of the target position in the teacher signal based on the class detected at the second step, to obtain correction data for each class.

37. (Original) A computer-readable medium for recording a program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step; and

a third step of averaging, for each class, informational data of the target position in the teacher signal based on the class detected at the second step, to obtain correction data for each class.

38. (Original) A program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step; and

a third step of averaging, for each class, informational data of the target position in the teacher signal based on the class detected at the second step, to obtain correction data for each class.

39-43. (Canceled)

44. (Original) An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

correction means for performing correction processing by use of the correction data generated by the correction data generation means on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to the target position in the second informational signal;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the informational data corrected by the correction means; and

informational data generation means for generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of informational data selected by the data selection means.

45. (Original) The apparatus for processing informational signal according to Claim 44, wherein the first class and the second class are the same as each other.

46. (Original) The apparatus for processing informational signal according to Claim 44, wherein class classification relating to the second class is the one obtained by making class classification relating to said first class finer.

47. (Canceled)

48. (Canceled)

49. (Original) A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing correction processing by use of the correction data generated at the first step on informational data among the multiple items of informational data that

constitute the first informational signal, said informational data corresponding to the target position in the second informational signal;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the informational data corrected at the second step; and

a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the fourth step.

50. (Original) A computer-readable medium for recording a program that allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing correction processing by use of the correction data generated at the first step on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to the target position in the second informational signal;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the informational data corrected at the second step; and

a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the fourth step.

51. (Original) A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing correction processing by use of the correction data generated at the first step on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to the target position in the second informational signal;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the informational data corrected at the second step; and

a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the fourth step.

52-59. (Canceled)

60. (Original) An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

first data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the first informational signal;

second data selection means for selecting multiple items of correction data that corresponds to the multiple items of informational data selected by the first data selection means, based on the correction data generated by the correction data generation means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs; and

informational data generation means for generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means, the multiple items of informational data selected by the first data selection means, and the multiple items of correction data selected by the second data selection means.

61. (Original) The apparatus for processing informational signal according to Claim 60, wherein the first class and the second class are the same as each other.

62. (Original) The apparatus for processing informational signal according to Claim 60, wherein class classification relating to the second class is the one obtained by making class classification relating to said first class finer.

63. (Canceled)

64. (Canceled)

65. (Original) A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a third step of selecting multiple items of correction data that corresponds to the multiple items of informational data selected at the second step, based on the correction data generated at the first step;

a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs; and

a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step, the multiple items of informational data selected at the second step, and the multiple items of correction data selected at the third step.

66. (Original) A computer-readable medium for recording a program that allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a third step of selecting multiple items of correction data that corresponds to the multiple items of informational data selected at the second step, based on the correction data generated at the first step;

a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs; and

a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step, the multiple items of informational data selected at the second step, and the multiple items of correction data selected at the third step.

67. (Original) A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a third step of selecting multiple items of correction data that corresponds to the multiple items of informational data selected at the second step, based on the correction data generated at the first step;

a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs; and

a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step, the multiple items of informational data selected at the second step, and the multiple items of correction data selected at the third step.

68-75. (Canceled)

76. (Original) An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

data selection means for selecting multiple items of correction data corresponding to a periphery of the target position in the second informational signal based on the correction data generated by the correction data generation means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

correction data generation means for generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of correction data selected by the data selection means; and

informational data generation means for performing correction processing by use of the correction data generated by the correction data generation means on the informational data, which corresponds to the target position in the second informational signal, among the multiple items of informational data that constitute the first informational signal to generate the informational data of the target position in the second informational signal.

77. (Original) The apparatus for processing informational signal according to Claim 76, wherein the first class and the second class are the same as each other.

78. (Original) The apparatus for processing informational signal according to Claim 76, wherein class classification relating to the second class is the one obtained by making class classification relating to said first class finer.

79. (Canceled)

80. (Canceled)

81. (Original) A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of correction data corresponding to a periphery of the target position in the second informational signal based on the correction data generated at the first step;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fourth step of generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the step third step and the multiple items of correction data selected at the second step; and

a fifth step of performing correction processing by use of the correction data generated at the fourth step on informational data, which corresponds to the target position in the second informational signal, among the multiple items of informational data that constitute the first informational signal to generate informational data of the target position in the second informational signal.

82. (Original) A computer-readable medium for recording a program that allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of correction data corresponding to a periphery of the target position in the second informational signal based on the correction data generated at the first step;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fourth step of generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the step third step and the multiple items of correction data selected at the second step; and

a fifth step of performing correction processing by use of the correction data generated at the fourth step on informational data, which corresponds to the target position in the second informational signal, among the multiple items of informational data that constitute the first informational signal to generate informational data of the target position in the second informational signal.

83. (Original) A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of correction data corresponding to a periphery of the target position in the second informational signal based on the correction data generated at the first step;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fourth step of generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the step third step and the multiple items of correction data selected at the second step; and

a fifth step of performing correction processing by use of the correction data generated at the fourth step on informational data, which corresponds to the target position in the second informational signal, among the multiple items of informational data that constitute the first informational signal to generate informational data of the target position in the second informational signal.

84-91. (Canceled)

92. (Original) An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second

informational signal comprised of multiple items of informational data, the apparatus comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the first informational signal;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

data generation means for generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means, and the multiple items of informational data selected by the data selection means;

informational data generation means for generating the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated by the correction data generation means on the data generated by the data generation means.

93. (Original) The apparatus for processing informational signal according to Claim 92, wherein the first class and the second class are the same as each other.

94. (Original) The apparatus for processing informational signal according to Claim 92, wherein class classification relating to the second class is the one obtained by making class classification relating to said first class finer.

95. (Canceled)

96. (Canceled)

97. (Original) A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the first informational signal;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

a fourth step of generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the second step; and

a fifth step of generating the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated at the first step on the data generated at the fourth step.

98. (Original) A computer-readable medium for recording a program that allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the first informational signal;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

a fourth step of generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the second step; and

a fifth step of generating the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated at the first step on the data generated at the fourth step.

99. (Original) A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the first informational signal;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

a fourth step of generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the second step; and

a fifth step of generating the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated at the first step on the data generated at the fourth step.

100-107. (Canceled)

108. (Original) A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

correction means for performing correction processing by use of the correction data generated by the correction data generation means on informational data among multiple items of informational data that constitute the student signal output from the decoding means, said informational data corresponding to the target position in the teacher signal;

data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the informational data corrected by the correction means; and

coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected by the data selection means, and the informational data of the target position in the teacher signal.

109. (Original) A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of performing correction processing by use of the correction data generated at the second step on informational data among multiple items of informational data that constitute the student signal obtained at the first step, said informational data corresponding to the target position in the teacher signal;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the informational data corrected at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and the informational data of the target position in the teacher signal.

110. (Original) A computer-readable medium for recording a program that allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of performing correction processing by use of the correction data generated at the second step on informational data among multiple items of informational data that constitute the student signal obtained at the first step, said informational data corresponding to the target position in the teacher signal;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the informational data corrected at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and the informational data of the target position in the teacher signal.

111. (Original) A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of performing correction processing by use of the correction data generated at the second step on informational data among multiple items of informational data that constitute the student signal obtained at the first step, said informational data corresponding to the target position in the teacher signal;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the informational data corrected at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and the informational data of the target position in the teacher signal.

112-115. (Canceled)

116. (Original) A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

first data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal output from the decoding means;

second data selection means for selecting multiple items of correction data that correspond to the multiple items of informational data selected by the first data selection means based on the correction data generated by the correction data generated means; and

coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected by the first data selection means, the multiple items of correction data selected by the second data selection means, and the informational data of the target position in the teacher signal.

117. (Original) A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal obtained at the first step;

a fourth step of selecting multiple items of correction data that correspond to the multiple items of informational data selected at the third step based on the correction data generated at the second step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the third step, the multiple items of correction data selected at the fourth step, and the informational data of the target position in the teacher signal.

118. (Original) A computer-readable medium for recording a program that allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple

items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal obtained at the first step;

a fourth step of selecting multiple items of correction data that correspond to the multiple items of informational data selected at the third step based on the correction data generated at the second step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the third step, the multiple items of correction data selected at the fourth step, and the informational data of the target position in the teacher signal.

119. (Original) A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into

a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal obtained at the first step;

a fourth step of selecting multiple items of correction data that correspond to the multiple items of informational data selected at the third step based on the correction data generated at the second step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the third step, the multiple items of correction data selected at the fourth step, and the informational data of the target position in the teacher signal.

120-123. (Canceled)

124. (Original) A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

subtraction means for performing subtraction processing by use of informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to a target position, on informational data of the target position in the teacher signal;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher signal belongs;

data selection means for selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated by the correction data generation means; and

coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of correction data selected by the data selection means, and output data of the subtraction means corresponding to the informational data of the target position in the teacher signal.

125. (Original) A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of performing subtraction processing by use of informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to a target position, on informational data of the target position in the teacher signal;

a third step of generating correction data for correcting a encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher signal belongs;

a fourth step of selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of correction data selected at the fourth step, and data obtained at the second step corresponding to the informational data of the target position in the teacher signal.

126. (Original) A computer-readable medium for recording a program that allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of performing subtraction processing by use of informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to a target position, on informational data of the target position in the teacher signal;

a third step of generating correction data for correcting a encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher signal belongs;

a fourth step of selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of correction data selected at the fourth step, and data obtained at the second step corresponding to the informational data of the target position in the teacher signal.

127. (Original) A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of performing subtraction processing by use of informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to a target position, on informational data of the target position in the teacher signal;

a third step of generating correction data for correcting a encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher signal belongs;

a fourth step of selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of correction data selected at the fourth step, and data obtained at the second step corresponding to the informational data of the target position in the teacher signal.

128-131. (Canceled)

132. (Original) A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of the target position in the teacher signal belongs;

subtraction means for performing subtraction processing by use of correction data generated by the correction data generation means on informational data of the target position in the teacher signal;

data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the student signal output from the decoding means; and

coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of information data selected by the data selection means, and output data of the subtraction means corresponding to the informational data of the target position in the teacher signal.

133. (Original) A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of performing subtraction processing by use of the correction data generated at the second step, on the informational data of the target position in the teacher signal;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the student signal obtained at the first step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and data obtained at the third step corresponding to the informational data of the target position in the teacher signal.

134. (Original) A computer-readable medium for recording a program that allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of performing subtraction processing by use of the correction data generated at the second step, on the informational data of the target position in the teacher signal;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the student signal obtained at the first step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and data obtained at the third step corresponding to the informational data of the target position in the teacher signal.

135. (Original) A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of performing subtraction processing by use of the correction data generated at the second step, on the informational data of the target position in the teacher signal;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the student signal obtained at the first step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and data obtained at the third step corresponding to the informational data of the target position in the teacher signal.

136-139. (Canceled)